**Scope of Work**

**Assessment of Inspection Reporting and Building Conditions in South Florida (Miami-Dade and Broward Counties)**

Florida Department of Business and Professional Regulation

Florida Building Commission

and

Engineering School of Sustainable Infrastructure and Environment (ESSIE)

University of Florida (UF)

Project Leader: Jennifer A. Bridge, Ph.D., University of Florida

1. **Introduction**

The recent collapse of the Champlain Towers South in Surfside, Florida highlights the need for a broad assessment of building inspection and maintenance practices in the State of Florida. A critical first step toward this assessment is to gain a clear understanding of the reported condition of existing structures through investigation of available inspection reports. Buildings older than 40 years are subject to inspection by a Florida licensed professional engineer or architect to receive recertification. The location, form, and accessibility of these inspection/recertification records vary tremendously between jurisdictions, making the establishment of a uniform state-level building inventory condition assessment a challenge. Adding to this challenge is the large number of building departments within each Florida County and the range of approaches to inspection and recertification enforcement.

The goal of this project is to conduct a preliminary assessment of the 40-year inspection reports for non-exempt structures in Miami-Dade and Broward Counties in an effort to catalog types of reported structural damage and deficiencies. This study will provide a broad account of the reported condition of the region’s building inventory and insight on how inspections are conducted, how repairs are documented, and how reports are recorded and maintained. These data will provide the foundation for a comprehensive assessment of current building structural inspection practices that can be used to develop recommendations for new practices to enhance the safety of Florida’s building stock.

1. **Scope of Work**

*Task 1: Scope assessment*

* UF ESSIE shall conduct a preliminary survey of building departments in Miami-Dade and Broward Counties to assess data accessibility and availability. This shall include selecting a subset of jurisdictions from each county for which records will be requested and those available will be analyzed.
* UF ESSIE shall determine the extent to which electronic records are available in the selected jurisdictions and methods for obtaining electronic and non-electronic data.
* UF ESSIE will use travel budget available to travel as necessary to access and catalogue the required records in person and shall scan and convert all collected non-electronic reports to digital files for further analysis.

*Task 2: Data classification methodology development*

* Upon completion of Task 1, UF ESSIE shall identify appropriate methods for data categorization and classification based on the data in the available inspection reports. The review of the reports and accompanying property appraiser data shall be used to classify the building data based on desired reporting outcomes.
* UF ESSIE shall develop data classification categories that capture as many features as possible regarding building age, occupancy, construction materials, height, applicable building code edition that the structure was permitted under, site, location, maintenance history, and damage as well information on inspection methods and approaches. Each category shall be assigned ranges (e.g., number of stories, distance to the coast, damage types, whether damage is in conditioned or unconditioned areas of the structure, extent of damage, etc.) for further data aggregation and analysis. UF ESSIE shall also record when reports are missing, overdue, or incomplete.

*Task 3: Data aggregation and classification*

* Upon completion of Task 2, UF ESSIE shall evaluate available inspection reports and accompanying property appraiser data to extract data into a spreadsheet according to the classification methodology developed in Task 2. Data collected shall be anonymized such that reported results and analyses do not identify specific jurisdictions, buildings, or inspectors. The purpose of this task is to record relevant data for analysis and reporting and to determine the potential for the development of a building inventory system for condition assessment based on existing inspection reports.

*Task 4: Data analysis*

* Upon completion of Task 3, UF ESSIE shall analyze the aggregated inspection and building data to generate statistics on reported building conditions and inspection practices across a wide range of building, code, site, maintenance and inspection metrics. This shall include identification of any observed patterns or trends in the data and preparation of appropriate tables and figures to communicate the analysis results.
* UF ESSIE shall seek input from the Florida Building Commission’s Hurricane Research Advisory Committee during the interim report presentation on the most relevant and critical reporting metrics.

*Task 5: Database recommendations*

* Upon completion of Task 4, UF ESSIE shall develop recommendations for a comprehensive, scalable building inspection database that can be used for ongoing state-level building condition assessment and evaluation of current inspection practices.
1. **Staffing**

**PI:** Jennifer Bridge, Ph.D., Associate Professor, Engineering School for Sustainable Infrastructure and Environment, University of Florida

**Co-PI:** Christopher Ferraro, Ph.D., Assistant Professor, Engineering School for Sustainable Infrastructure and Environment, University of Florida

**Co-PI:** Forrest Masters, Ph.D., P.E., Associate Dean for Research and Facilities, Herbert Wertheim College of Engineering, University of Florida

**Co-PI:** Thomas Sputo, Ph.D., P.E., S.E., SI, Consulting Structural Engineer, Sputo and Lammert Engineering

1. **Method of Payment**

A purchase order will be issued to the University of Florida. This project shall start on date of execution of the purchase order and end at the midnight on June 30, 2022. This purchase order shall not exceed $100,000.00 and shall cover all costs for labor, materials and overhead. Payment will be made for the study after the Program Manager and the Florida Building Commission’s Hurricane Research Advisory Committee have approved the final report. Additionally, the Contractor agrees to provide additional documentation requested by the Program Manager to satisfy all payment and audit requirements.

1. **Deliverables**
2. An interim report shall be prepared and delivered no later than February 28, 2022. The interim report shall cover progress to date on all tasks. This report will serve as a progress update that details the current state of research, preliminary results, and descriptions of any issues that may have been encountered. In addition, the interim report shall be formally presented to the Florida Building Commission’s Hurricane Research Advisory Committee at a time agreed to by the Contractor and Department’s Program Manager. The due date may be extended with the approval of the Department’s Program Manager.
3. A final report shall be prepared and delivered no later than June 30, 2022. The final report shall contain deliverables of the five tasks discussed in Section 2. This shall include summary and analysis of data acquisition, detailed summary of the data statistical analysis, and preliminary recommendations for improving inspection practices of existing buildings in Florida. In addition, the final report shall be formally presented to the Florida Building Commission’s Hurricane Research Advisory Committee at a time agreed to by the Contractor and Department’s Program Manager. The due date may be extended with the approval of the Department’s Program Manager.

# Financial Consequences

UF ESSIE is solely responsible for the satisfactory performance of the tasks and completion of the deliverables as described in this Scope of Work. Failure to complete the tasks and deliverables in the time and manner specified in Sections 2 and 5 shall result in a non-payment of invoice until corrective action is completed as prescribed by the program or contract manager.

# Program Manager

The Program Manager for this project is Mo Madani. Mo Madani’s email address is Mo.Madani@myfloridalicense.com and his phone number is 850-717-1825. The contract manager for this project is Barbara Bryant. Barbara Bryant’s email address is Barbara.Bryant@myfloridalicense.com and her phone number is 850-717-1838.